Publication number: CN1152138

Publication date:

1997-06-18

Inventor:

TATSUMI KENZOU (JP); KUSUNOSE NOBORU (JP):

YOSHIKI SHIGERU (JP)

Applicant:

RICOH KK (JP)

Classification:

- international:

G03G15/08; G03G15/08; (IPC1-7): G03G15/06;

G03G15/00

- européan:

G03G15/08H3; G03G15/08H3B

Application number: CN19961020321 19961011

Priority number(s): JP19950263085 19951011; JP19950277756 19951025;

JP19960242587 19960825

## Report a data error here

Also published as:

US5828935 (A1) DE19642003 (A1)

Abstract not available for CN1152138
Abstract of corresponding document: **US5828935** 

A toner bottle (38) has projections (38c, 38c') on its bottom surface. The projections (38c, 38c') extend in the axial direction but are spaced away from the central-axis line of the toner bottle (38). The projections (38c, 38c') are engaged with convex portions (62b, 62b') formed in a joint (62) of a drive portion (60). When the drive portion (60) starts rotating, the torque is transferred to the toner bottle (38) via the projections (38c, 38c') and the convex portions (62b, 62b'). Since the torque is transferred from the bottom side of the toner bottle (38), the toner bottle (38) can be attached to or detached from a body of an image forming apparatus in a direction of the central-axis line. Toner discharged from the toner bottle (38) is introduced into a process cartridge through an opening portion (48) of a toner hopper portion (40) and a toner introducing cover (52). A shutter member (88) is disposed in the toner introducing cover (52). The shutter member (88) consists of a flexible elastic member (90) and a holding member (92) for holding the elastic member (90). The shutter member (88) intersects with the opening plane of a toner supplying port. Guiding portions for bending and guiding the elastic member (90) along the toner supplying port are also disposed in the toner introducing cover (52).



